ARIZONA

A. C. C. E. S. S.

MANAGEMENT

TAC Meeting #6

February 20, 2007



Meeting Agenda

- 1. Welcome/Introductions
- 2. Classification System
- 3. Design Guidelines
- 4. Program Framework
- 5. Indian Community Outreach
- 6. Next Steps



Progress Since Last TAC Meeting

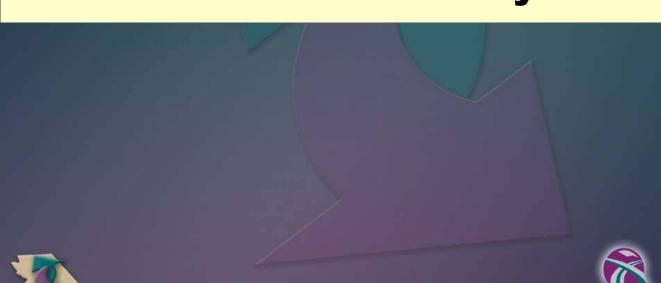
- Completed ADOT Access Classifications
- Redefining Indian Community Outreach Program
- Created the Design Elements and Initiated Design Team Review





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Access Classification System



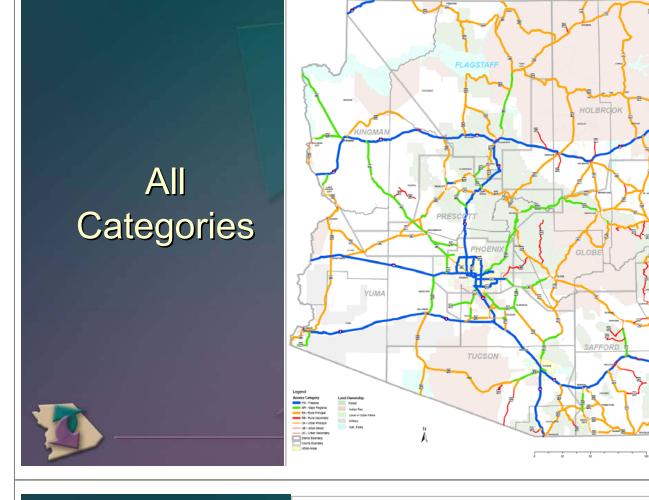
Arizona State Highway										
(Draft) Access Management Categories										
FW (freeway)										
MR (major regional)										
RA (rural principal)	UA (urban principal)									
DR (rural cocondary)	UB (urban mixed)									
RB (rural secondary)	UC (urban secondary)									
SF (service and	frontage roads)									

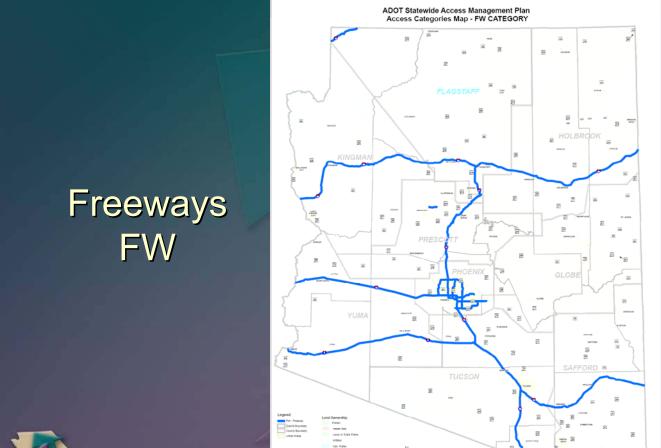




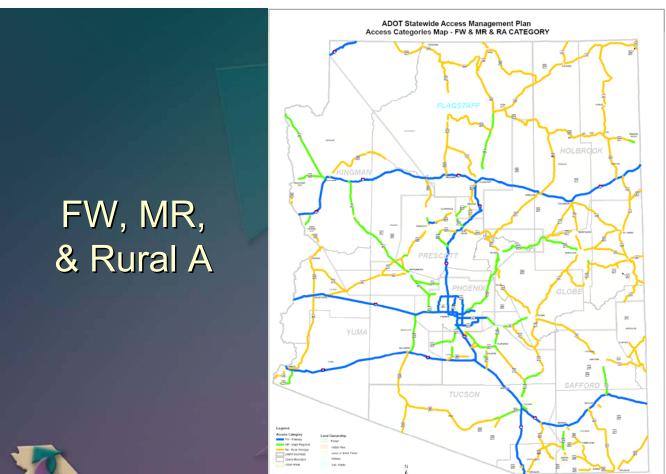
Category Map Legend

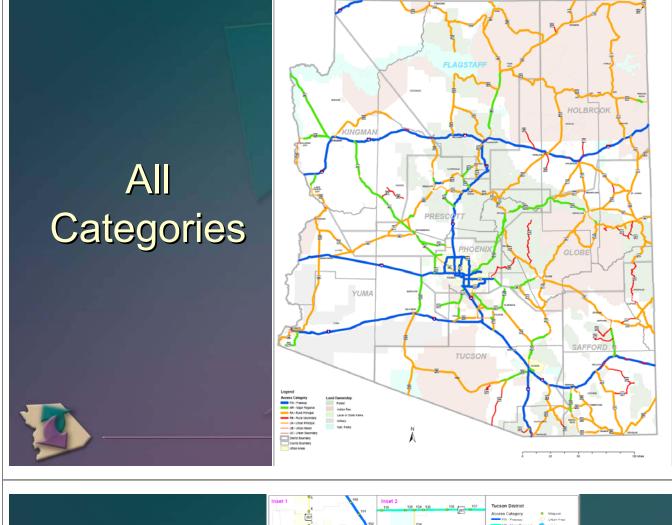


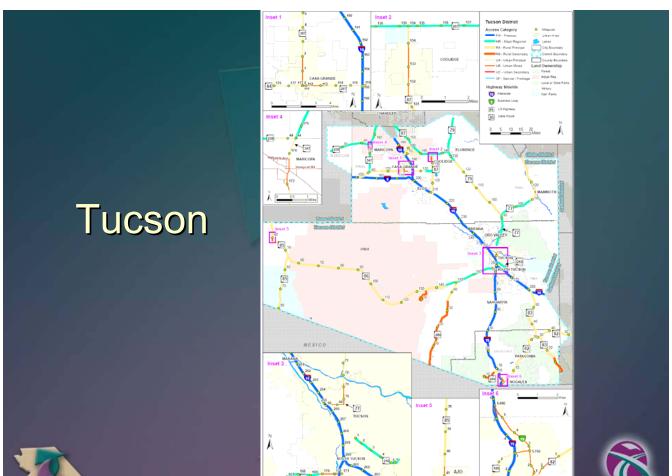






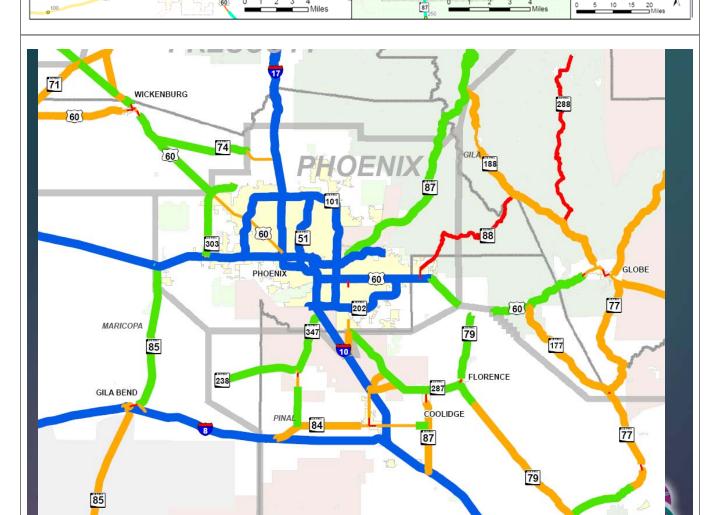






Prescott District Inset 1 Flagstaff District Proseoff District 325 260 230 87 PRESCOTT VALLEY 169 89 Prescott District Access Category Milepost FW - Freeway District Boundary MR - Major Regional County Boundary 25b 87 255 RA - Rural Principal RB - Rural Secondary 5 Lakes PEORIA — UA - Urban Principal City Boundary Local Street Highway Shields Inset 3 Local or State 95 US Highway 85 State Route

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Sample Assignment Listing

H	Holbrook District Access Category Assignment Schedule, For District Review											
Route	Beg_MP	End_MP	County	Category	Length	Description						
140	229.900	245.410	Coconino	FW	15.510	From Flagstaff District Line (Canyon Diablo Bridge) to Jct SR 99 / Leupp Rd (Exit 245)						
140	245.410	250.500	Coconino	FW	5.090	From Jct SR 99 / Leupp Rd (Exit 245) to Navajo County Line						
I 40	250.500	257.700	Navajo	FW	7.200	From Navajo County Line to SR 87 North (Exit 257) (East end of Winslow)						
I 40	257.700	274.740	Navajo	FW	17.040	From SR 87 North (Exit 257) (East end of Winslow) to SB 40 (7) (Exit 274) (West end of Joseph City)						
I 40	274.740	277.080	Navajo	FW	2.340	From SB 40 (7) (Exit 274) (West end of Joseph City) to SB 40 (7) (Exit 277) (East end of Joseph City)						
I 40	277.080	285.180	Navajo	FW	8.100	From SB 40 (7) (Exit 277) (East end of Joseph City) to SB 40 (8) (Exit 285) (West end of Holbrook)						
SB 40 (7)	274.610	275.470	Navajo	RB	0.860	From I-40 Exit 274 (West end of Joseph City) to 158 feet east of Despain Ave						
SB 40 (7)	275.470	276.254	Navajo	UB	0.784	From 158 feet east of Despain Ave to Robertson Ave						
SB 40 (7)	276.254	277.350	Navajo	RB	1.096	From Robertson Ave to I-40 Exit 277 (East end of Joseph City)						
SB 40 (8)	285.040	285.565	Navajo	RB	0.525	From I-40 Exit 285 (West end of Holbrook) to Rest Area entrance						
SB 40 (8)	285.565	286.680	Navajo	UB	1.115	From Rest Area entrance to Jct US 180 / SR 77 (in Holbrook)						
SB 40 (8)	286.680	286.765	Navajo	UC	0.085	From Jct US 180 / SR 77 (in Holbrook) to Arizona St						
SB 40 (8)	286.765	287.320	Navajo	UB	0.555	From Arizona St to 264 feet south of I-40 Exit 286						
SB 40 (8)	287.320	287.410	Navajo	UA	0.090	From 264 feet south of I-40 Exit 286 to I-40 Exit 286						
SB 40 (8)	287.410	288.405	Navajo	UA	0.995	From I-40 Exit 286 to Hermosa Dr						
SB 40 (8)	288.405	289.920	Navajo	UB	1.515	From Hermosa Dr to I-40 Exit 289 (East end of Holbrook)						
US 64	465.400	469.570	Apache	RA	4.170	From Jct US 160 (at Teec Nos Pos) to New Mexico State Line						
SR 77	361.089	361.315	Navajo	UB	0.226	From Globe District Line (north end of Snowflake) to 1193 feet north of Globe District Line						
SR 77	361.315	386.205	Navajo	RA	24.890	From 1193 feet north of Globe District Line to Jct SR 377						
SR 77	386.205	387.660	Navajo	RA	1.455	From Jct SR 377 to 815 feet south of Jct US 180						
SR 77	387.660	387.815	Navajo	UA	0.155	From 815 south of Jct US 180 to Jct US 180						
SR 77	387.815	388.365	Navajo	UA	0.550	From Jct US 180 to North end of Little Colorado River Bridge (in Holbrook)						
SR 77	388.365	388.425	Navajo	UB	0.060	From North end of Little Colorado River Bridge (in Holbrook) to Central Ave						
SR 77	388.425	388.670	Navajo	UC	0.245	From Central Ave to Jct SB 40 (8) (in Holbrook)						
SR 77	395.180	408.930	Navajo	RB	13.750	From I-40 Exit 292 to Bndary entering Navajo Indian Reservation						
SR 87	290.450	315.543	Coconino	RA	25.093	From Lake mary Rd / Clints Well Rd (Prescott District Line) to Bndary leaving Coconino Natl Forest						
SR 87	315.543	336.106	Coconino	RA	20.563	From Bndary leaving Coconino Natl Forest to Navajo County Line						
SR 87	336.106	340.945	Navajo	RA	4.839	From Navajo County Line to Jct SR 99						



- Drafted a set access design elements
 - Category design elements
 - Access location and design
- Design Team is currently reviewing
 - Senior HQ and District Staff
- Traffic Engineers discussion today
- March 6 Working meeting



Access Design Elements

- Driveway Geometrics
- Turn Lane warrants and design
- Access location and spacing
- Spacing of signals
- Medians





Preliminary volume warrants

Access	Left-turn	Decel	Right-turn Decel Lane			
Category At/Above 45		Below 45	At/Above 45	Below 45		
MR	10 AADT	10 AADT	5 VPH	10 VPH		
UA	10 VPH	10 VPH	10 VPH	10 VPH		
UB	10 VPH	15 VPH	15 VPH	15 VPH		
UC	10 VPH	25 VPH	15 VPH	25 VPH		
RA	10 VPH	10 VPH	10 VPH	10 VPH		
RB	10 VPH	15 VPH	10 VPH	15 VPH		
SF	10 VPH	25 VPH	25 VPH	40 VPH		



Entering Sight Distance

Table 1 - 2 Entering Sight Distance at Access Allowing Left Turns (in feet)

				Post	ted Spe	ed of F	Roadwa	y in MF	PH		
Design Vehicle	25	30	35	40	45	50	55	60	65	70	75
Two Lane Roadway											
Single Unit Truck	350	420	490	560	630	700	770	840	910	980	1050
	Four Lane Roadway										
Single Unit Truck	375	450	525	600	675	750	825	900	975	1050	1125
Six Lane Roadway											
Single Unit Truck	405	485	565	645	725	805	885	965	1045	1125	1205





Left Turn Storage Lengths

Tables 1 - 9: Storage Lengths

MR-UA-RA. Unsignalized, left, Minimum of 50 ft rural, 100 ft urban.

Turning Vehicles Per Peak Hour	50	75	100	150	200	250	300	350	400
Required Lane Length in Feet	85	125	170	250	335	420	500	585	670

RB & UB. Unsignalized, left, Minimum of 50 ft rural, 100 ft urban.

Turning Vehicles Per Peak Hour	50	75	100	150	200	250	300	350	400
Required Lane Length in Feet	75	115	150	225	300	375	450	525	600

UC only, unsignalized, left, Minimum of 50 ft rural, 100 ft urban.

Turning Vehicles Per Peak Hour	50	75	100	150	200	250	300	350	400
Required Lane Length in Feet	65	95	125	190	250	315	375	440	500

Other Access Design Issues

- Visibility of the access connection
- Sight Distances
- Selection of the Design Vehicle
- Drainage
- Cattle guards and gates
- Emergency access only.
- Earthwork.
 - Side slopes at access, erosion control.
- **Design Variances**
 - Exception and Waiver Procedures





Access Permitting Process

- Permits Issued
- Local Land Use Reviews
- Access Management Plan Participation
- Unit Reporting and Management
- Local Agency Coordination
- Traffic Impact Analysis Reports
- * Driveway Access Construction
- Access Related Roadway Construction

Planning

Move AZ

* Land Use Plans

Traffic Impact Reports

Adopted Comprehensive Plans

Annexation and Growth Boundaries

- Budget Planning
- Air Quality Benefits of AM

Local Agencies

 Zoning Ordinances and Development Subdivision and Exceptions

Data and Information

DECISIONS

ACCESS

Arizona Highway Projects

- * Roadway Design Driveway and Intersection Decisions
- Project Related Access Closures
- Access Management Plans
- Right of Way Acquisition and Access Control
- Project Related Access Closures
- Access Management Plans
- Interchange Design and Access Management of Approaches
- Access Controls for Freeways

Right of Way Activities

- Appraisal of Access Changes for Compensation Value
- Acquisition Agent Guidance
- Access Reductions by Acquisition
- Access Change Damage Claims
- Condemnation Proceedings Involving Access Issues and Damages

Transportation Board

- * Access Policies
- * Budget Allocations
- * Capital Investment Strategies
- Safety and Mobility Policies
- ADOT Organizational Structure

ADOT Construction Practices

- Adherence to Design and Driveway Decisions
- Quality Assurance for Driveway Construction
- Materials and Specifications for Private Access

Traffic & Safety Programs

- Identification of High Crash Rates Related to Access
- Identification of Access Related Congestion
- Crash Histories and Reporting Requirements

Chapter 1. Introduction

- Authority for program, both ADOT and local government
- Why manage access?
 - What happens if we don't.
 - Needs and benefits explained
 - Safety and engineering principles
 - Benefits to state economy
 - Benefits for public safety
- Organization of the Manual





Chapter 2. Access Decision-Making

- How are access decisions made by ADOT
- Local government coordination
- The access category system
- Types of access permits issued
- Decision and process flow chart (s)





Chapter 3. Access Permitting Rules

- Two new rules within the Administrative Code:
 - Access Permitting 2. Access Category Assignments
- The Rules address all <u>mandatory</u> procedures affecting an applicant
- Any process, standard or requirement that places a burden on the applicant
- Any requirement which is enforceable
- All potential contents of a permit





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Chapter 4. Coordination with Local, State, Federal Agencies and Tribal Entities

- How ADOT and other agencies share information
- How to review land use changes and proposed development
- Assessing traffic and safety impacts
- Model land development ordinances with access management and elements





Chapter 5. Access Management Plans for Corridors

- Process for developing a plan
- Multi-agency involvement
- Involving all stakeholders: land owners, lessees, roadway users
- Legal process (IGAs, Adoptions, incorporations, recording)
- Templates, models for AMPs.





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Chapter 6. Traffic Studies and Engineering

- Standards for studies
- Traffic Studies Content (TIA's)
- Determine short-term and long-term impacts
- Safety Evaluation
- Determining conformity of access with new State access rules





Chapter 7. Access Control by Ownership

- When are access deeds obtained to control access
 - Freeways, major regionals, interchange crossroads
- Managing changes in access control





Chapter 8. Managing Access at and near Interchanges

- Engineering, operation, and safety issues
- Access Control extending along crossroad
- Extending medians along cross road
- Frontage road intersection treatments
- When the cross road is not a state highway





Chapter 9. Access Design and Construction

- Access construction plans and specifications
- Inspection and specification enforcement.
- IGAs for large access projects.
- Access Design templates, typical plans and design guidance
- Design references





Internal Framework

- Revising ADOT administrative structure for access permitting?
 - Role of lead office at HQ?
 - District permit coordinators report to?
- Access permitting process
 - New system in development (software)





Indian Community Outreach





Indian Community Outreach

- Work with each of the 23 Communities
- Tribal Letter
- On-going process
- Develop Access Management understanding with each Community.





Next Steps





Next Steps

- District by District Classifications Review by Local Agencies
- Complete Draft Design Guidelines
- Initiate Framework Discussions
- Continue Indian Community Outreach Efforts
- Continue Other Outreach Efforts



